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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/484,458	01/18/2000	Satoshi Shinada	Q575519	9719

7590 12/05/2001

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Washington, DC 20037-3202

EXAMINER

STEWART JR, CHARLES W

ART UNIT	PAPER NUMBER
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2853

DATE MAILED: 12/05/2001

#16

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.
09/484,458

Applicant(s)
Satoshi Shinada et al.

Examiner
Charles Stewart, Jr.

Art Unit
2853



-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on _____
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-124 is/are pending in the application.
- 4a) Of the above, claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 66-76 and 84-94 is/are allowed.
- 6) ☒ Claim(s) 1-65, 77-83, and 95-124 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claims _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are objected to by the Examiner.
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

- 13) ☒ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

a) ☒ All b) ☐ Some* c) ☐ None of:

1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

*See the attached detailed Office action for a list of the certified copies not received.

- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

- 15) ☐ Notice of References Cited (PTO-892)
- 16) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 17) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 6, 7, 9, 10, 12, 13 and 14
- 18) ☐ Interview Summary (PTO-413) Paper No(s) _____
- 19) ☐ Notice of Informal Patent Application (PTO-152)
- 20) ☐ Other: _____

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DETAILED ACTION

1. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103© and potential 35 U.S.C. 102(f) or (g) prior art under 35 U.S.C. 103(a).

Priority

2. Receipt is acknowledged of papers filed on purporting to comply with the requirements of 35 U.S.C. 119(a)-(d), which papers have been placed of records in the file.

Specification

3. On page 4, line 24, Fig. 30 should be Fig. 31 (circuit board).

Claim Rejections - 35 USC § 112

4. Claims 1-65, 96-123 and 124 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

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Claim 1, it is unclear how is an overhang member disposed between the first upper corner and the second upper corner. Claim 1, it is not clear what an "overhang member" entails". Claims 2-65, 96-123 and 124 are rejected because of their dependence to the reject claim.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5 Claims 1-65, 96-123 and 124 are rejected under 35 U.S.C. 103(a) as being unpatentable over Akahane et al. EP 0 997 297 A1 in view of Bullock et al. USP 6,065,824.

As best construed, Akahane et al. discloses an ink cartridge for an ink jet printing apparatus having a printhead which ejects ink droplets onto a recording medium, the printhead having an ink supply needle, and is mounted on a movable carriage, the ink cartridge as forth in the abstract comprising:

a housing (fig. 21) containing an ink therein and configured for removable mounting on the printhead, said housing having a first wall and a second wall, the second wall having both a first upper corner and a second upper corner; an ink supply port formed (col. 9, lines 2-10) on said first wall receiving the ink supply needle of the printhead and supplying the ink from said housing to the printhead. While Akahane et al. discloses a memory device (col. 6, lines 5) storing

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information about the ink disposed on said housing. However, Akahane et al. does not disclose at least two electrical contacts on said second wall and allowing electrical communication between the memory device and the ink jet printing apparatus, each of the electrical contacts lying at a predetermined distance from the central line of the ink supply port. Nevertheless, Bullock et al. disclose at least two electrical contacts on said second wall and allowing electrical communication between the memory device and the ink jet printing apparatus (col. 3, lines 24-31), each of the electrical contacts lying at a predetermined distance from the central line of the ink supply port. It would have been obvious to one having ordinary skill in the art to use the ink jet of Akahane et al. with the memory device, as taught by Bullock et al. in order that the data signal is sensed by the ink jet printer while the cartridge is being replaced.

Akahane et al. disclose an overhang member (col. 5, lines 33-39) disposed between the first upper corner and the second upper corner.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 77-83 and 95 are rejected under 35 U.S.C. 103(a) as being unpatentable over

Shinada et al. USP 6,170,940 B1 in view of Clark et al. USP 6,168,262 B1.

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As best construed, Shinada et al. discloses a contact forming (fig. 15) device attached on an ink cartridge holder of an cartridge for an ink jet printing apparatus, the contact forming device comprising: first contact members disposed on one surface of the contact forming device, said first contact members electrically contacting a memory device which stores information of ink contained in the ink cartridge (col. 14, lines 26-31). However, Shinada et al. does not disclose a second contact members disposed on the other surface of the contact forming device, said second contact member electrically contacting a part of the printing apparatus which receives information of ink. Nevertheless, Clark et al. discloses a second contact members disposed on the other surface of the contact forming device (col. 6, lines 49-56) said second contact member electrically contacting a part of the printing apparatus which receives information of ink. It would have been obvious to one having ordinary skill in the art to use the invention of Shinada et al. with a second contact members disposed on the other surface of the contact forming device, said second contact member electrically contacting a part of the printing apparatus which receives information of ink as taught by Clark et al. for the purpose of allowing information to be exchanged between the memory and the printer.

Allowable Subject Matter

7. Claims 66-76, 84-93 and 94 allowed.
8. The following is a statement of reasons for the indication of allowable subject matter:

The recitation of a plurality of elastic contact members formed on said support, each of said contact member contacts a respective terminal of the memory device of the ink cartridge

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when the ink cartridge is mounted on the printing apparatus, at least two of said plurality of contact member contact a single terminal of the memory device when the ink cartridge is mounted as set forth in independent claim 84. The recitation at least one elastic member formed at a predetermined portion of the printing apparatus, said elastic member elastically engaging with said ink container when said ink container is mounted on the printing apparatus as set forth in independent claim 85. The recitation of a plurality of contacts disposed at a predetermined angle relative to a wall plane on a wall of said housing, the contacts allowing electrical communication between the memory device and the ink jet printing apparatus as set forth in independent claim 66.

Contact Information

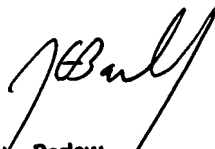
9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Examiner Charles W. Stewart, Jr. whose telephone number is (703) 308-7252. The examiner can normally be reached on Monday-Friday from 8:30 a.m to 5:00 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John E. Barlow, Jr. Art Unit 2853, can be reached on (703) 308-3126. The fax phone number for the organization where this application or proceeding is assigned is (703) 305-3432.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.

cws 

November 8, 2001



John Barlow
Supervisory Patent Examiner
Technology Center 2800